

**Notice of Allowability**

Application No.

10/032,468

Examiner

Timothy Edwards, Jr.

Applicant(s)

HUDSON ET AL.

Art Unit

2635

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to filing date January 2, 2002.
2. ☒ The allowed claim(s) is/are 1-36.
3. ☒ The drawings filed on 02 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 5/14/03, 2/4/03, 11/18/02, 1/2/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

Claims 1-36 are allowed.

The following is an examiner's statement of reasons for allowance: with respect to claims 1, 13, 26, 31, 36 in the environment of a data transmission in a pipeline system, the closest prior art Babour et al '592 fail to teach or suggest, a current loop forming apparatus wherein a metallic structure of a pipeline and earth form the current loop; the loop having a first conducting portion being spaced from second conducting portion and the metallic structure comprising at least one of the conducting portions; a transmitter for applying a signal to one of the conducting portions whereby a potential difference is generated between the earth and the metallic structure in the region of the loop which causes a signal to propagate, wherein the loop forming apparatus is arranged to ensure that the spaced locations are separated by at least a minimum distance selected to give desired transmission or reception characteristics. With respect to claims 11, 14, 15, 30 a data transmission system in which metallic structure of a well includes a production string and casing is used as a signal channel and earth is used as return comprising a local unit having at least one of a transmitter and receiver means coupled to the production string and insulating spacers arranged to ensure that the production string and casing are spaced from one another for at least a selected minimum distance in the region of the local unit, the minimum distance being selected to give a desired transmission or reception characteristics. With respect to claims 16, 22, a data transmission system for use in pipeline system apparatus for forming a current

loop path comprising a portion of an inner conductive member and a corresponding portion of an outer conductive member electrically connected to one another at two spaced locations, the arrangement being such that in use the current flowing in the portion of the inner member does not match the current flowing in the corresponding portion of the outer member whereby signals are generated in the inductive coupling arrangement so allowing communication from the internal unit to the external unit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

1. Any inquiry concerning this communication should be directed to Examiner Timothy Edwards at telephone number (571) 272-3067. The examiner can normally be reached on Tuesday-Friday, 8:00 a.m.-6:00 p.m. The examiner cannot be reached on Mondays.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik, can be reached on (571) 272-3068.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-4700, Mon-Fri., 8:30 a.m.-5:00 p.m.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or fax to:

(703), 872-9314 (for formal communications intended for entry)

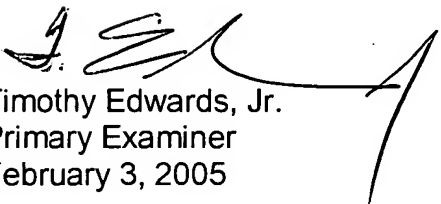
Or:

(for informal or draft communications, please label "PROPOSED"

or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington, VA, Sixth Floor, (Receptionist).



Timothy Edwards, Jr.  
Primary Examiner  
February 3, 2005